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Using Collaborative Learning as a Strategy to Overcome Stage Fear of Professional Students

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ABSTRACT: As educators, we're often faced with teaching students who come to us with fear that prevents them from fully exploring their passion. Tips on how to encourage students to address stage fear first surfaced back in the early 1900s. As a result, many schools now have art specialists or theater coordinators who work directly with students and perform arts teachers. However, dealing with stage fear can be difficult for any educator and sometimes, even impossible for some students. You might feel helpless while trying to encourage your student(s) who are struggling with this issue. However, if you are an educator, you have a great opportunity to help students who are hesitant to perform in front of others. Whether you are leading a group of 50 high school students or a group of elementary school students, there are practical ways that you can provide an atmosphere where your students feel comfortable while they're performing.

KEYWORDS: collaborative, learning, strategy, stage fear, overcome, professional, students, teachers

I. INTRODUCTION

7 Ways on How to Encourage Students to Deal With Stage Fear

1. Have fun-One of the ways that most students don't feel comfortable performing in front of others is if they feel the performance will be boring or nerve-wracking. When students are nervous, they often try to avoid these feelings by avoiding the situation altogether. One way to combat this fear is to help students create a fun atmosphere during their performances by showing them how much fun they would have had when they performed their favourite pieces. This can give students confidence that their performance will also be enjoyable for others as well.¹

2. Reward good performance with praise and compliments-Students are often embarrassed when they perform poorly and don't want others to see or hear this side of them. As a result, they often avoid practicing their pieces so that they can perform them smoothly during the actual performance. This is why it is extremely important to show them how much a great performance should be admired and praised rather than avoiding showing off their poor performances. For example, if your student's performance was memorable, ask them to perform that piece again. Additionally, encourage your other students to show positive feedback by being attentive and applauding during good performances. Show students that a good performance is something to be proud of and even exhilarating.²

3. Don't let the fear of failure control students' performance potentials or dreams-Students often allow fear of failure to stop them from doing what they want in their lives and in school. Show them that you're willing to help



them, but that they also need to be willing to push themselves. If they continue to avoid performing, remind them of the long-term effects of avoiding their fears. Encourage students to develop the courage and perseverance they need in order to face their fears and overcome them when they arise.³

4. Emphasize other things besides winning or losing-Happiness is an important thing for students and adults alike because it helps us grow as people and evolve in our lives. Tell your student after a good performance, “I think you should be proud of yourself for doing so well. You were a great performer!” Focus on the positive actions your students take in order to help them enjoy performing as well.⁴

5. Use other ways to demonstrate your affection for student’s performances-Instead of immediately giving out gratitude after every performance, show your affection using different methods. Let students know that you’re proud of their hard work and dedication to getting better by showing them your enthusiasm when they practice hard and spend hours perfecting their pieces. Also, let them know that you’re glad they share the same passions as you by telling them how much you’ve enjoyed watching their progress throughout the year or even during their high school years.⁵

6. Show them that they’re not alone when they’re uncomfortable with performing-Many students don’t want to feel alone or isolated when they experience fear during a performance. Help them feel comfortable by letting them know you’ve felt this way before as well. When you can explain that other people are also scared of performing, it can calm their nerves and help them be less afraid to take the stage.⁶

7. Don’t forget about yourself when you’re trying to encourage students in dealing with stage fright-Your student’s confidence depends on your confidence in their performance as well. Let them know that you’re confident in their abilities and that you acknowledge the effort they’ve put into practising their pieces so far. As a result, they can feel that you’re expecting good performances from them and will be happy with the final results. Regardless of your age, gender, or expertise as an educator, you’re able to help students by providing an encouraging atmosphere during their performances. With the proper techniques and strategies for helping students establish an atmosphere where fear of performing doesn’t rule their lives, everyone can learn to overcome stage fear.⁷

The Final Word

Stage fright can be a challenging thing to handle, but you’re not alone. If you are an educator, there are various ways to help your students overcome stage fright and perform confidently in front of audiences. The most important thing is to show them how much you care about their performance and how you want to see them improve.

Effective communication and collaboration are essential to becoming a successful learner. It is primarily through dialogue and examining different perspectives that students become knowledgeable, strategic, self-determined, and empathetic. Moreover, involving students in real-world tasks and linking new information to prior knowledge requires effective communication and collaboration among teachers, students, and others. Indeed, it is through dialogue and interaction that curriculum objectives come alive. Collaborative learning affords students enormous advantages not available from more traditional instruction because a group--whether it be the whole class or a learning group within the class--can accomplish meaningful learning and solve problems better than any individual can alone.⁸



This focus on the collective knowledge and thinking of the group changes the roles of students and teachers and the way they interact in the classroom. Significantly, a groundswell of interest exists among practitioners to involve students in collaboration in classrooms at all grade levels.

II. DISCUSSION

Characteristics of a Collaborative Classroom

Collaborative classrooms seem to have four general characteristics. The first two capture changing relationships between teachers and students. The third characterizes teachers' new approaches to instruction. The fourth addresses the composition of a collaborative classroom.

1. Shared knowledge among teachers and students

In traditional classrooms, the dominant metaphor for teaching is the teacher as information giver; knowledge flows only one way from teacher to student. In contrast, the metaphor for collaborative classrooms is shared knowledge. The teacher has vital knowledge about content, skills, and instruction, and still provides that information to students. However, collaborative teachers also value and build upon the knowledge, personal experiences, language, strategies, and culture that students bring to the learning situation. Consider a lesson on insect-eating plants, for example.⁹ Few students, and perhaps few teachers, are likely to have direct knowledge about such plants. Thus, when those students who do have relevant experiences are given an opportunity to share them, the whole class is enriched. Moreover, when students see that their experiences and knowledge are valued, they are motivated to listen and learn in new ways, and they are more likely to make important connections between their own learning and "school" learning. They become empowered.¹⁰ This same phenomenon occurs when the knowledge parents and other community members have is valued and used within the school. Additionally, complex thinking about difficult problems, such as world hunger, begs for multiple ideas about causes, implications, and potential solutions. In fact, nearly all of the new curricular goals are of this nature--for example, mathematical problem-solving--as are new requirements to teach topics such as AIDS. They require multiple ways to represent and solve problems and many perspectives on issues.¹¹

2. Shared authority among teachers and students

In collaborative classrooms, teachers share authority with students in very specific ways. In most traditional classrooms, the teacher is largely, if not exclusively, responsible for setting goals, designing learning tasks, and assessing what is learned. Collaborative teachers differ in that they invite students to set specific goals within the framework of what is being taught, provide options for activities and assignments that capture different student interests and goals, and encourage students to assess what they learn. Collaborative teachers encourage students' use of their own knowledge, ensure that students share their knowledge and their learning strategies, treat each other respectfully, and focus on high levels of understanding. They help students listen to diverse opinions, support knowledge claims with evidence, engage in critical and creative thinking, and participate in open and meaningful dialogue. Suppose, for example, the students have just read a chapter on colonial America and are required to prepare a product on the topic. While a more traditional teacher might ask all students to write a ten-page essay, the collaborative teacher might ask students to define the product themselves. Some could plan a videotape; some could dramatize events in colonial America; others could investigate original sources that support or do not support the textbook chapter and draw comparisons among them; and some could write a ten-page paper. The point here is twofold: (1) students have opportunities to ask and investigate questions of personal interest, and (2) they have a voice in the decision-making process. These opportunities are essential for both self-regulated learning and motivation.¹²



3. Teachers as mediators

As knowledge and authority are shared among teachers and students, the role of the teacher increasingly emphasizes mediated learning. Successful mediation helps students connect new information to their experiences and to learning in other areas, helps students figure out what to do when they are stumped, and helps them learn how to learn. Above all, the teacher as mediator adjusts the level of information and support so as to maximize the ability to take responsibility for learning.¹³

4. Heterogeneous groupings of students

The perspectives, experiences, and backgrounds of all students are important for enriching learning in the classroom. As learning beyond the classroom increasingly requires understanding diverse perspectives, it is essential to provide students opportunities to do this in multiple contexts in schools. In collaborative classrooms where students are engaged in a thinking curriculum, everyone learns from everyone else, and no student is deprived of this opportunity for making contributions and appreciating the contributions of others. Thus, a critical characteristic of collaborative classrooms is that students are not segregated according to supposed ability, achievement, interests, or any other characteristic. Segregation seriously weakens collaboration and impoverishes the classroom by depriving all students of opportunities to learn from and with each other. Students we might label unsuccessful in a traditional classroom learn from "brighter" students, but, more importantly, the so-called brighter students have just as much to learn from their more average peers. Teachers beginning to teach collaboratively often express delight when they observe the insights revealed by their supposedly weaker students. Thus, shared knowledge and authority, mediated learning, and heterogeneous groups of students are essential characteristics of collaborative classrooms. These characteristics, which are elaborated below, necessitate new roles for teachers and students that lead to interactions different from those in more traditional classrooms.¹⁴

Teacher Roles in a Collaborative Classroom

Across this nation, teachers are defining their roles in terms of mediating learning through dialogue and collaboration. While mediation has been defined in different ways by Reuven Feuerstein, Lev Vygotsky and others, we define mediation here as facilitating, modeling, and coaching. Most teachers engage in these practices from time to time. What is important here is that these behaviors (1) drive instruction in collaborative classrooms, and (2) have specific purposes in collaborative contexts.¹⁵

Facilitator Facilitating involves creating rich environments and activities for linking new information to prior knowledge, providing opportunities for collaborative work and problem solving, and offering students a multiplicity of authentic learning tasks. This may first involve attention to the physical environment. For example, teachers move desks so that all students can see each other, thus establishing a setting that promotes true discussion. Teacher may also wish to move their desks from the front of the room to a less prominent space. Additionally, teachers may structure the resources in the classroom to provide a diversity of genres and perspectives, to use and build upon cultural artifacts from the students' homes and communities, and to organize various learning activities. Thus, a collaborative classroom often has a multiplicity of projects or activity centers using everyday objects for representing numerical information in meaningful ways and for conducting experiments that solve real problems. These classrooms also boast a rich variety of magazines, journals, newspapers, audiotapes, and videos which allow students to experience and use diverse media for communicating ideas. In Video Conference 1, for example, students were shown investigating science concepts using everyday materials, such as paper and straw, found in their neighborhoods.¹⁶

Facilitating in collaborative classrooms also involves people. Inside the classroom, students are organized into heterogeneous groups with roles such as Team Leader, Encourager, Reteller, Recorder, and Spokesperson. (See Elizabeth Cohen's work for further elaboration.) Additionally, collaborative teachers work to involve parents and



community members. Examples are: A workshop center in New York invites parents to come and experience the thinking processes involved in conducting experiments using everyday objects so that they can provide such learning experiences at home (Video Conference 1); teachers in Tucson involve parents and the community in academic tasks their students engage in (Video Conference 3), and rural students in Colorado perform community services such as producing a local newspaper (Video Conference 5). Another way that teachers facilitate collaborative learning is to establish classrooms with diverse and flexible social structures that promote the sort of classroom behavior they deem appropriate for communication and collaboration among students. These structures are rules and standards of behaviors, fulfilling several functions in group interaction, and influencing group attitudes. Particular rules depend, of course, on the classroom context. Thus, teachers often develop them collaboratively with students and review or change them as needed. Examples of rules are giving all members a chance to participate, valuing others' comments, and arguing against (or for) ideas rather than people. Examples of group functions are: asking for information, clarifying, summarizing, encouraging, and relieving tension. To facilitate high quality group interaction, teachers may need to teach, and students may need to practice, rules and functions for group interaction. Finally, teachers facilitate collaborative learning by creating learning tasks that encourage diversity, but which aim at high standards of performance for all students. These tasks involve students in high-level thought processes such as decision making and problem solving that are best accomplished in collaboration. These tasks enable students to make connections to real-world objects, events, and situations in their own and an expanded world, and tap their diverse perspectives and experiences. Learning tasks foster students' confidence and at the same time, are appropriately challenging.¹⁷

Model Modeling has been emphasized by many local and state guidelines as sharing one's thinking and demonstrating or explaining something. However, in collaborative classrooms, modeling serves to share with students not only what one is thinking about the content to be learned, but also the process of communication and collaborative learning. Modeling may involve thinking aloud (sharing thoughts about something) or demonstrating (showing students how to do something in a step-by-step fashion). In terms of content, teachers might verbalize the thinking processes they use to make a prediction about a scientific experiment, to summarize ideas in a passage, to figure out the meaning of an unfamiliar word, to represent and solve a problem, to organize complicated information, and so on. Just as important, they would also think aloud about their doubts and uncertainties. This type of metacognitive thinking and thinking aloud when things do not go smoothly is invaluable in helping students understand that learning requires effort and is often difficult for people. With respect to group process, teachers may share their thinking about the various roles, rules, and relationships in collaborative classrooms. Consider leadership, for example. A teacher might model what he or she thinks about such questions as how to manage the group's time or how to achieve consensus. Similarly, showing students how to think through tough group situations and problems of communication is as invaluable as modeling how to plan an approach to an academic problem, monitoring its progress, and assessing what was learned. A major challenge in mediating learning is to determine when it is appropriate to model by thinking aloud and when it is useful to model by demonstrating. If a teacher is certain that students have little experience with, say, a mathematical procedure, then it may be appropriate to demonstrate it before students engage in a learning task. (This is not to say that the teacher assumes or states that there is only one way to perform the procedure. It is also important to allow for individual variations in application.) If, on the other hand, the teacher believes students can come up with the procedure themselves, then he or she might elect to ask the students to model how they solved the problem; alternatively the teacher could give students hints or cues.¹⁸

Coach Coaching involves giving hints or cues, providing feedback, redirecting students' efforts, and helping them use a strategy. A major principle of coaching is to provide the right amount of help when students need it--neither too much nor too little so that students retain as much responsibility as possible for their own learning. For example, a collaborative group of junior high students worked on the economic development of several nations. They accumulated a lot of information about the countries and decided that the best way to present it was to compare the countries. But they were stymied as to how to organize the information so they could write about it in a paper, the product they chose to produce. Their teacher hinted that they use a matrix--a graphic organizer they had learned--to organize their information. When the group finished the matrix, the teacher gave them feedback. In so doing, he did not tell them it was right or wrong, but asked questions that helped them verbalize their reasons for completing the



matrix as they did. The principle the teacher followed was to coach enough so that students could continue to learn by drawing on the ideas of other group members.¹⁹

Student Roles in a Collaborative Classroom

Students also assume new roles in the collaborative classroom. Their major roles are collaborator and active participant. It is useful to think how these new roles influence the processes and activities students conduct before, during, and after learning. For example, before learning, students set goals and plan learning tasks; during learning, they work together to accomplish tasks and monitor their progress; and after learning, they assess their performance and plan for future learning. As mediator, the teacher helps students fulfill their new roles.²⁰

Goal setting Students prepare for learning in many ways. Especially important is goal setting, a critical process that helps guide many other before-, during-, and after-learning activities. Although teachers still set goals for students, they often provide students with choices. When students collaborate, they should talk about their goals. For example, one teacher asked students to set goals for a unit on garbage. In one group, a student wanted to find out if garbage is a problem, another wanted to know what happens to garbage, a third wanted to know what is being done to solve the problem of garbage. The fourth member could not think of a goal, but agreed that the first three were important and adopted them. These students became more actively involved in the unit after their discussion about goals, and at the end of the unit, could better evaluate whether they had attained them.²¹

Designing Learning Tasks and Monitoring While teachers plan general learning tasks, for example, to produce a product to illustrate a concept, historical sequence, personal experience, and so on, students assume much more responsibility in a collaborative classroom for planning their own learning activities. Ideally, these plans derive in part from goals students set for themselves. Thoughtful planning by the teacher ensures that students can work together to attain their own goals and capitalize on their own abilities, knowledge, and strategies within the parameters set by the teacher. Students are more likely to engage in these tasks with more purpose and interest than in traditional classrooms. Self-regulated learning is important in collaborative classrooms. Students learn to take responsibility for monitoring, adjusting, self-questioning, and questioning each other. Such self-regulating activities are critical for students to learn today, and they are much better learned within a group that shares responsibility for learning. Monitoring is checking one's progress toward goals. Adjusting refers to changes students make, based on monitoring, in what they are doing to reach their goals. For example, a group of students decided that the sources of information on the Civil War they selected initially were not as useful as they had hoped, so they selected new materials. Another group judged that the paper they had planned to write would not accomplish what they thought it would the way they had organized it, so they planned a new paper. Students can further develop their self-regulating abilities when each group shares its ideas with other groups and gets feedback from them. For example, in the first video conference, elementary students were shown collaborating in small groups to define and represent math problems. Working in small groups, the children determined what was being asked in story problems and thought of ways to solve the problems. Then each group shared its ideas with the whole class. Members of the class commented on the ideas. As students developed problem-solving skills with feedback from other groups, they learned more about regulating their own learning which they could use in the future.²²

Assessment While teachers have assumed the primary responsibility for assessing students' performance in the past, collaborative classrooms view assessment much more broadly. That is, a major goal is to guide students from the earliest school years to evaluate their own learning. Thus, a new responsibility is self-assessment, a capability that is fostered as students assess group work. Self-assessment is intimately related to ongoing monitoring of one's progress toward achievement of learning goals. In a collaborative classroom, assessment means more than just assigning a grade. It means evaluating whether one has learned what one intended to learn, the effectiveness of learning strategies, the quality of products and decisions about which products reflect one's best work, the usefulness of the materials used in a task, and whether future learning is needed and how that learning might be realized. Collaborative classrooms are natural places in which to learn self-assessment. And because decisions about materials and group performance are shared, students feel more free to express doubts, feelings of success, remaining questions, and



uncertainties than when they are evaluated only by a teacher. Furthermore, the sense of cooperation (as opposed to competition) that is fostered in collaborative work makes assessment less threatening than in a more traditional assessment situation. Ideally, students learn to evaluate their own learning from their experiences with group evaluation.²³

III. RESULTS

Interactions in a Collaborative Classroom

The collaborative classroom is alive with two-way communication. A major mode of communication is dialogue, which in a collaborative classroom is thinking made public. A major goal for teachers is to maintain this dialogue among students. Consider examples of interactions in collaborative groups. Members discuss their approaches to solving a math problem, explain their reasoning, and defend their work. Hearing one student's logic prompts the other students to consider an alternative interpretation. Students are thus challenged to re-examine their own reasoning. When three students in a group ask a fourth student to explain and support her ideas, that is, to make her thinking public, she frequently examines and develops her concepts for herself as she talks. When one student has an insight about how to solve a difficult problem, the others in the group learn how to use a new thinking strategy sooner than if they had worked on their own. Thus, students engaged in interaction often exceed what they can accomplish by working independently. Collaborative teachers maintain the same sort of high-level talk and interaction when a whole class engages in discussion. They avoid recitation, which consists primarily of reviewing, drilling, and quizzing; i.e., asking questions to which the answer is known by the teacher and there is only one right answer. In true discussion, students talk to each other as well as to the teacher, entertain a variety of points of view, and grapple with questions that have no right or wrong answers. Sometimes both students and the teacher change their minds about an idea. In sum, interactions in whole group discussion mirror what goes on in small groups. Still a third way interactions differ in collaborative classrooms has been suggested above. Teachers, in their new roles as mediators, spend more time in true interactions with students. They guide students' search for information and help them share their own knowledge. They move from group to group, modeling a learning strategy for one group, engaging in discussion with another, giving feedback to still another.²⁴

Challenges and Conflicts

When teachers and schools move from traditional to collaborative instruction, several important issues are likely to arise. They are important concerns for teachers, administrators, and parents.

Classroom Control Collaborative classrooms tend to be noisier than traditional classrooms. This is a legitimate issue for a number of people. Some teachers believe that noisy classrooms indicate lack of discipline or teacher control. In such situations, they argue, students cannot learn. Earlier in this essay we stressed that collaborative classrooms do not lack structure. Indeed, structure becomes critical. Students need opportunities to move about, talk, ask questions, and so on. Thus, we argue that the noise in a smoothly running collaborative classroom indicates that active learning is going on. However, students must be taught the parameters within which they make their choices. Rules and standards must be stressed from the beginning, probably before any collaboration is initiated, and reviewed throughout a school year.²⁵

Preparation Time for Collaborative Learning Teachers and administrators may believe that new lesson plans must be formed for these classrooms. To a certain extent, they are correct. But many teachers already have created engaging units and activities that are easily implemented in a collaborative classroom. Furthermore, teachers can begin slowly, making changes in one subject area or unit within a subject area, probably one they are already very comfortable teaching, and then add other subjects and units. Teachers can also share their plans with each other. Indeed, if we expect students to collaborate, we should encourage teachers to do the same! Principals and curriculum specialists can also collaborate with teachers to plan effective segments of instruction. Moreover, there is a tradeoff



between the extra planning time needed and benefits such as less time correcting lessons, increased student motivation, and fewer attendance and discipline problems.²⁶

Individual Differences Among Students We have touched on this concern in the section on heterogeneous grouping. Nevertheless, many people will still doubt that individual differences can be better addressed in collaborative classrooms than in traditional classrooms with homogeneous grouping. A major question people have concerns the advantage collaboration affords gifted or high-achieving students. There are two tough issues here. First, many teachers do not believe that low-achieving students have much to contribute to the learning situation; in effect, that they have no prior experiences or knowledge of value. Second, teachers worry that high-achieving students will be held back. In response to the first issue, many collaborative teachers have expressed surprise when seemingly less-able students had insights and ideas that went way beyond what teachers expected. Further, if each student contributes something, the pool of collective knowledge will indeed be rich. In answer to the second concern, data suggest that high-achieving students gain much from their exposure to diverse experiences and also from peer tutoring (e.g., Johnson and Johnson, 1989). Also, students who may be high achieving in one area may need help in other areas. Teachers and others also wonder whether shy students can fully participate in a classroom that depends so much on dialogue. We suggest that these students might feel more comfortable talking in small groups that share responsibility for learning. Furthermore, interaction between learners can happen in ways other than oral dialogue, for example, writing and art. A related concern is that many schools are structured homogeneously so that an individual teacher cannot form heterogeneous groups without involving changes in the entire school. A whole class of "low" readers are taught by one teacher, "average" by another. High school tracks are even more systematically entrenched. Clearly, these practices are not conducive to collaborative learning and require system-wide restructuring. Individual teachers or groups of teachers can initiate dialogue on the problem, however.²⁷

Individual Responsibility for Learning This concern is a difficult one to solve unless major changes in other areas of schooling are also undertaken. Students are used to being graded for individual work; parents expect to know how their students fare in school. School staff and state departments depend on traditional assessments. In collaborative classrooms, it is often difficult to assign individual grades. Some teachers give group grades, but many students and parents are uncomfortable with these. Ideally, assessment practices should be changed so that they are consistent with collaboration, with a new view of learning and with a thinking curriculum. Video Conference 4 addresses recent research and practice on assessment. In the meantime, effective ways have been developed whereby individual students can be evaluated in collaborative classrooms. For example, David Johnson and Roger Johnson, as well as Robert Slavin, advise making individuals responsible for subtasks in group work and then determining both group and individual grades.²⁸

Conflict of Values Susan Florio-Ruane has observed that many teachers do not feel comfortable allowing students to initiate dialogue, determine topics, or explore perspectives other than the teacher's. This reluctance conflicts with the way effective caregivers teach their children in the home. Florio-Ruane and others, such as Annemarie Palincsar, have found that teachers often have difficulty helping students construct meaning, especially linking the new information to the prior knowledge and culture of the students. In part this is because many teachers believe that their role is to transmit knowledge; in part it is because they are held accountable for teaching discrete skills. In one poignant example, a student teacher's concern for grammar and punctuation prevented her from seeing the sophistication and meaning in what the child was actually communicating in a book report. The reluctance people feel when asked to make major changes in the way they do things is clearly the most serious issue of those discussed here. Hardly a person exists who eagerly gives up familiar ways of behaving to attempt something that is unknown and is likely to have many challenges of implementation. This problem requires leadership, support, and time to address. Staff development needs to address teachers' concerns. We urge that educators first examine their assumptions about learning and then consider new curriculum guidelines. There is an intimate relationship among one's definition of learning, one's view of the content and scope of curricula, and instructional practices. Examining one's assumptions honestly and forthrightly, in a supportive group, often spurs educators to change. The already-convinced must allow time for the less-convinced to reflect and grapple with implications for the views. They must



also accept the possibility that some educators may not change. We are urging that students be treated with such respect; we must urge the same respect for adults.²⁹

Research Base for Collaborative Learning

Vygotskian Theory

Vygotsky, a developmental theorist and researcher who worked in the 1920s and early '30s, has influenced some of the current research of collaboration among students and teachers and on the role of cultural learning and schooling. His principal premise is that human beings are products not only of biology, but also of their human cultures. Intellectual functioning is the product of our social history, and language is the key mode by which we learn our cultures and through which we organize our verbal thinking and regulate our actions. Children learn such higher functioning from interacting with the adults and other children around them.³⁰

Inner Speech Children learn when they engage in activities and dialogue with others, usually adults or more capable peers. Children gradually internalize this dialogue so that it becomes inner speech, the means by which they direct their own behavior and thinking. For example, as adults use language such as, "That piece does not fit there; let's try it someplace else," children may initially just imitate this strategy. However, they gradually use it to regulate their own behavior in a variety of contexts. Eventually, this dialogue becomes internalized as inner speech. There seems to be a general sequence in the development of speech for oneself. When alone, very young children tend to talk about what they have done after they complete an activity. Later, they talk as they work. Finally, they talk to themselves before they engage in an activity. Speech now has assumed a planning function. Later they internalize this speech. Inner speech--conversations we carry on with ourselves begins as a social dialogue with other people and is a major mode of learning, planning, and self-regulation. Various experiments demonstrate this self-regulating function of inner speech. Vygotsky reasoned that when people are asked to solve difficult problems or to perform difficult tasks, inner speech will go external, that is, take its more primitive form. In other words, people frequently talk to themselves when they face a problem. This externalization of inner speech is often observed in children. When they engage in familiar, simple activities, they usually do so without talk, but faced with difficult tasks, they may whisper or talk out loud to themselves. Adults do this, too. When they are faced with perplexing or unfamiliar tasks such as figuring out how to work a VCR--they often talk themselves through such tasks. Vygotsky noted that children interacting toward a common goal tend to regulate each other's actions. Other researchers (e.g., Forman & Cazden, 1986) have observed that when students work together on complex tasks, they assist each other in much the same way adults assist children. In such tasks, dialogue consists of mutual regulation. Together, they can solve difficult problems they cannot solve working independently.³¹

Scaffolding and Development Effective caregivers engage in regulating dialogue with children almost naturally. A key phenomenon of such interactions is that caregivers maintain the dialogue just above the level where children can perform activities independently. As children learn, adults change the nature of their dialogue so that they continue to support the child but also give the child increasing responsibility for the task (for example, the adult might say, "Now see if you can find the next piece of the puzzle yourself."). Jerome Bruner and his colleagues called this **scaffolding**. It takes place within a child's **zone of proximal development**, a level or range in which a child can perform a task with help. (Piaget refers to this as "teachable moments" when adults stretch a child's capacity, but stay within what they are capable of understanding.)³²

The zone of proximal development, scaffolding, and dialogue are especially useful concepts or frameworks for school learning. Vygotsky observed that effective teachers plan and carry out learning activities within children's zones of proximal development, through dialogue and scaffolding. Florio-Ruane drew five maxims from studies of caregiver-child interactions that illustrate these points and should characterize school instruction³³.



1. Assume the child (learner) is competent
2. Know the child (learner)
3. Share an interest in the task at hand with the child (learner)
4. Follow the child's (learner's) lead
5. Capitalize on uncertainty

Very few teachers have the luxury of teaching children on a one-to-one basis. Fortunately, we now know that tutoring is not, in fact, the only--or even the best--way for students to learn in most situations. Dialogue, scaffolding, and working in one's zone of proximal development can be accomplished in collaborative classrooms, and are being accomplished in many classrooms today.³⁴

Connecting school learning to everyday life Vygotsky also provides us with a framework for thinking about an important function of teaching and the multicultural perspective. His research suggests that school learning enables students to connect their "everyday concepts" to "scientific concepts." In other words, schools help students draw generalizations and construct meaning from their own experiences, knowledge, and strategies. Knowledge learned in the community and knowledge gained from school are both valuable. Neither can be ignored if students are to engage in meaningful learning. Effective teachers help students make these connections by scaffolding and dialogue. In fact, these are the essence of mediating. Teachers plan learning activities at points where students are challenged. Teachers plan activities and experiments that build on the language of students' everyday lives through familiar examples and behaviors, analogies and metaphors, and the use of commonly found materials. Teachers demonstrate, do parts of the task students cannot do, work collaboratively with students where they need help, and release responsibility to students when they can perform the task independently.³⁵

Other Research

A number of researchers in recent years have demonstrated the high degree of learning possible when students can collaborate in learning tasks and when they use their own knowledge as a foundation for school learning. While there are many that we could cite, we have chosen three different perspectives here: Luis Moll's work on teachers' use of successful cultural patterns in Mexican-American families; Annemarie Palincsar's and Anne Brown's work on scaffolding, dialogue, and reciprocal teaching; and research on cooperative learning. Later we provide additional research in content area examples.³⁶

Luis Moll Moll, an educator, and his colleagues in anthropology, Carlos Velez-Ibanez and James Greenberg, have studied Mexican-American families who have survived successfully in spite of debilitating circumstances such as poverty and discrimination. Particular constellations of cultural patterns--strategies if you will-- that value learning and the transmission of knowledge to children distinguish these families. Moll et al. argue that schools can draw on the social and cognitive contributions that parents can make to their children's academic learning. Moll and his colleagues discovered that Mexican-American households are clustered according to kinship ties and exchange relationships. These clusters of households develop rich funds of knowledge that provide information about practices and resources useful in ensuring the well-being of the households. Each household in the cluster is a place where expertise in a particular domain can be accessed and used; examples of domains include repair of vehicles and appliances, plumbing, knowledge of education, herbal medicine, and first aid. Together, the households form a cluster for the exchange of information and resources. Often, everyone seems to congregate at one core household. Families create settings in which children carry out the tasks and chores in the multiple domains of clustered households. The children's activities have important intellectual consequences. They observe, question, and assist adults as various tasks are done. For example, the son may indicate interest in fixing a car by asking



questions. The father takes his cue from the child and then decides whether or not the child is capable of doing a task; if not, he may suggest a task that the child can accomplish. Even though the son's help may be minimal, such as helping to put in screws or checking the oil, his participation in the whole task is encouraged as an essential part of learning. He is allowed to attempt tasks and to experiment without fear of punishment if he fails. In such families, learning and questioning are in the hands of the child. With time children develop expertise as well. They have many opportunities in the cluster of households to apply what they have learned to tasks of their own design. For example, the son may have a workplace where there are many "junk" engines that he can manipulate and with which he can experiment. He may use what he has learned in observing and assisting his father to rebuild a small engine for a "go-cart" he is constructing.³⁷

Moll and his colleagues are exploring ways of using the community to enrich children's academic development. To accomplish this, teachers have developed an after-school laboratory. One teacher created a module on constructing houses which is a theme of great interest to the students in this teacher's classroom and also one of the most prominent funds of knowledge found in the students' households. The students started by locating information on building or construction in the library. As a result of their research, they built a model house or other structure as homework and wrote reports describing their research and explaining their construction. To extend this activity, the teacher invited parents and other community members who were experts to share information on specific aspects of construction. For example, one parent described his use of construction tools and how he measured the area and perimeter of his work site. Thus, the teacher was mobilizing the funds of knowledge in the community to achieve the instructional goals that she and her students had negotiated together. The students then took the module one step further. They wanted to consider how they could combine these individual structures to form a community. This task required both application of their earlier learnings and considerable research. Students went out to do research, wrote summaries of their findings, and shared the results orally with others in the class. Thus, students fulfilled their own interests and designed the learning task, while the teacher facilitated and mediated the learning process and fulfilled her curricular goal of teaching language arts.³⁸

Palincsar and Brown Palincsar and Brown have applied Vygotsky's theories about dialogue and scaffolding to classroom instruction. They reasoned that if the natural dialogue that occurs outside of school between a child and adult is so powerful for promoting learning, it ought to promote learning in school as well. In particular, they were interested in the planning and self-regulation such dialogue might foster in learners as well as the insights teachers might gain about their students' thinking processes as they engage in learning tasks. In addition, dialogue among students might be especially effective for encouraging collaborative problem solving. Palincsar and Brown noted that, in contrast to effective adult-child interactions outside of school, classroom talk does not always encourage students to develop self-regulation. Thus, a goal of their research was to find ways to make dialogue a major mode of interaction between teachers and students to encourage self-regulated learning. Their classroom research revealed increased self-regulation in classrooms where, subsequent to training, dialogue became a natural activity. Within a joint dialogue, teachers modeled thinking strategies effectively, apparently in part because students felt free to express uncertainty, ask questions, and share their knowledge without fear of criticism. The students gave the teachers clues, so to speak, as to the kind of learning they were ready for. For example, one student interrupted her teacher when she did not understand something the teacher was reading. The teacher took this opportunity to model a clarifying strategy. (It also would have been appropriate to have asked other students to model the process.) In a number of classrooms, students freely discussed what they knew about topics, thus revealing persistent misconceptions. Such revelations do not always happen in more traditional classrooms. Furthermore, teachers helped students change their misconceptions through continued dialogue.³⁹

One particular application was in reading comprehension for students identified as poor readers. The researchers proposed that poor readers have had impoverished experiences with reading for meaning in school and concluded that they might learn comprehension strategies through dialogue. To encourage joint responsibility for dialogue, they asked students to take increasing responsibility for leading discussion, i.e., to act as the teacher. This turn-taking is called reciprocal teaching. The four comprehension strategies that are stressed are: predicting, question generating, summarizing, and clarifying. The "teacher" leads dialogue about the text. Predicting activates students'



prior knowledge about the text and helps them make connections between new information and what they already know, and gives them a purpose for reading. Students also learn to generate questions themselves rather than responding only to teacher questions. Students collaborate to accomplish summarizing, which encourages them to integrate what they have learned. Clarifying promotes comprehension monitoring. Students share their uncertainties about unfamiliar vocabulary, confusing text passages, and difficult concepts. Reciprocal teaching has been successful, but only when teachers believe the underlying assumption that collaboration among teachers and students to construct meaning, solve problems, and so forth, leads to higher quality learning. Believing this is only a beginning. Engaging in true dialogue requires practice for both teachers and students. However, the principles of collaborative dialogue and scaffolding for purposes of self-regulated learning ought to be effective across many content areas. What may differ, of course, are the critical specific strategies for different subject areas. For example, defining problems seems critical in mathematics; judging the reliability of resources appears important in social studies; and seeking empirical evidence is essential in science. In fact, Palincsar is currently investigating problem solving in science.⁴⁰

Cooperative Learning Cooperation, a form of collaboration, is "working together to accomplish shared goals" (Johnson & Johnson, 1989, p. 2). Whereas collaboration happens in both small and large groups, cooperation refers primarily to small groups of students working together. Many teachers and whole schools are adopting cooperation as the primary structure for classroom learning. Research strongly supports the advantages of cooperative learning over competition and individualized learning in a wide array of learning tasks. Compared to competitive or individual work, cooperation leads to higher group and individual achievement, higher-quality reasoning strategies, more frequent transfer of these from the group to individual members, more metacognition, and more new ideas and solutions to problems. In addition, students working in cooperative groups tend to be more intrinsically motivated, intellectually curious, caring of others, and psychologically healthy. That is not to say that competition and individual work should not be valued and encouraged, however. For example, competition is appropriate when there can be only one winner, as in a sports event, and individualistic effort is appropriate when the goal is personally beneficial and has no influence on the goals of others.⁴¹

Unfortunately, simply putting students in groups and letting them go is not enough to attain the outcomes listed above. Indeed, many teachers and schools have failed to implement cooperation because they have not understood that cooperative skills must be learned and practiced, especially since students are used to working on their own in competition for grades. At least three conditions must prevail, according to Johnson and Johnson, if cooperation is to work. First, students must see themselves as positively interdependent so that they take a personal responsibility for working to achieve group goals. Second, students must engage in considerable face-to-face interaction in which they help each other, share resources, give constructive feedback to each other, challenge other members' reasoning and ideas, keep an open mind, act in a trustworthy manner, and promote a feeling of safety to reduce anxiety of all members. Heterogeneous groups of students usually accomplish this second condition better than do homogeneous groups. The third condition, effective group process skills, is necessary for the first two to prevail. In fact, group skills are never "mastered." Students continually need to reflect on their interactions and evaluate their cooperative work. For example, students need to learn skills both for accomplishing tasks, such as summarizing and consensus taking, and for maintaining group cohesiveness, such as ensuring that everyone has a chance to speak and compromising. Some people, such as Slavin, have developed specific cooperative learning methods that emphasize individual responsibility for group members. While groups still work to achieve common goals, each member fulfills a particular role or accomplishes an individual task. Teachers can then assess both group and individual work. Difficult as it may be to implement cooperative learning, those who have are enthusiastic. They see improved learning, more effective social skills, and higher self-esteem for most of their students. In addition, they recognize that our changing world demands more and more cooperation among individuals, communities, and nations, and that they are indeed preparing students for this world.⁴²



Implications

Other Examples of Collaborative Instruction

The Kamehameha Early Education Program

Some teachers in Hawaiian classrooms, in cooperation with researchers such as Katherine Au, have developed a way to teach elementary reading, Experience-Text-Relationship (ETR), that focuses on comprehension and draws on the strengths of the Hawaiian culture. The basic element of the ETR method is discussion of a text and topics related to the text, especially students' own experiences.⁶¹ Teachers conduct discussion of stories in three phases. First, they guide students to activate what they know that will help them understand what they read, make predictions, and set purposes. This is the Experience phase. Next, they read the story with the students, stopping at appropriate points to discuss the story, determine whether their predictions were confirmed, and so on. This is the Text phase. After they have finished the story, teachers guide students to relate ideas from a text to their own experiences. This is the Relationship phase. Teachers facilitate comprehension, model processes, and may coach students as they engage in reading and comprehension activities.⁴³

Hawaiians engage in "talk story" as a favored way to narrate stories. While some cultures expect only one person to relate a story, Hawaiians cooperate by taking turns relating small parts of a story. Encouraging such strategies in reading lessons promotes collaboration among students and the teacher and involves, indirectly, the community as well. (Cooperation among family and group members is also important in other aspects of the culture.) As a result, the ETR method not only attends to students' experiences related to the content of a text, but also honors communication strategies students have learned in their own cultures.⁴⁴

Content Area Reading Harold Herber developed a set of teaching strategies for content area reading for older students, particularly high school students, in which teachers show students how to comprehend text through simulation (modeling and facilitating) rather than asking recitation questions that merely assess whether students have understood a text. In addition, use of small, heterogeneous,⁶⁰ collaborative groups in content area reading increases students' involvement in learning. They are more willing to take risks and to learn new strategies and ideas from their peers. Teachers who use Herber's strategies report that all students seem to benefit from collaborative work. They find that it is critical, however, to teach students how to work in groups.⁴⁵

Process Writing The process writing approach we describe here was developed in a rural school in New Hampshire under the direction of Donald Graves. It has been incorporated in many elementary school classrooms but is just as appropriate for older children. Process writing teachers who use Graves' approach make certain assumptions about students and the writing process⁵⁹. One is that students have worthwhile ideas to communicate in writing. Another is that when students select their own topics they will learn more about writing than if teachers always assign topics. A third is that writing should be read by real audiences, that is, that writing is constructing meaning by a community of writers and readers. Both teachers and students engage in writing as a craft. Teachers' main functions are to facilitate, model, and coach. Students dialogue with other students in conferences and as part of an audience. The mode of interaction is collaboration among students and the teacher. Teachers fulfill their mediating roles in many ways. They facilitate by providing time to write every day and by setting standards with the students for conferencing, sharing, and being an audience. They model by writing along with the students and thinking aloud about how to solve problems writers encounter such as selecting topics and making revisions.⁵⁸ Coaching often takes place in teacher-student conferences, and student-student conferences mirror the teacher-student conference. Conferences are conceptualized as dialogues between an editor and an author. The "editor" might point out places where the author's writing works especially well, or might point out a confusing passage that the author could revise. Graves provides many practical guidelines for, and examples of, successful conferencing. Many important interactions are promoted in process writing. Students work on their own, but also share their writing with other students and the teacher. When a student decides to share his or her work with the whole class, he or she is treated as a real author. Questions that other students ask the student author would be the same ones they might ask a "real" author; for example,



"Where did you get your idea for that story?" When students feel a piece is finished, they publish it and place it on the classroom shelves alongside books by their peers and "real" authors.⁴⁶

Finding Mathematical Patterns Mathematics is full of opportunities for students to collaborate on tasks that require complex thinking. Well-designed problems require interpretation, allow for multiple solution strategies, and have solutions that can be debated, extended, and generalized to other contexts⁵⁷. Thomas Good and his colleagues at the University of Missouri-Columbia have identified exemplary practices in small-group mathematics instruction. As an illustration, they summarize a lesson developed by a third-grade teacher. She began the lesson by asking the whole class all the different ways of writing 3 as a sum (for example, $1 + 1 + 1$, $2 + 1$, $3 + 0$). She wrote the responses on the board and noted the number of possibilities. She then asked students to work in pairs to identify all the ways to make sums of 4. The teacher encouraged the students to confer and pool solutions to determine whether they had found all possible solutions. Next she asked small groups of students to consider the number 5. Before the groups started, she asked them to predict how many solutions there would be. With enthusiasm and excitement, the groups competed to find the greatest number of solutions, and much task-related conversation ensued. The teacher then led a follow-up discussion, asking each group to describe the system it had used to generate possible solutions. The class then decided which system they thought was best. The teacher then helped students look for patterns in the numbers of solutions for 3, 4, and 5. Next, she asked them to use their "best" system to generate all possible patterns for the number 6. Again, she asked if a pattern was apparent and if they could use it to predict solutions for the number 7. Several suggestions were made, but no conclusions agreed on. She ended by encouraging students to think more about this problem.⁴⁷

Application in Mathematics. As part of the University of Chicago School Mathematics Project, a complete mathematics curriculum has been developed for average students in grades 7-12. Development of this curriculum, which began in 1983, is under the direction of Zalman Usiskin and Sharon Senk, and has involved school personnel at every stage of planning, writing, and testing. The curriculum aims to prepare students for an age in which mathematics has an integral role in contemporary issues, communication, and commerce, as well as its traditional role in science, engineering, and technology. Curricular content focuses on using mathematics to solve real-world problems. For example, instead of being asked to find a solution to an abstract "problem" such as 400 divided by 11.3, students might be asked, "Suppose a car goes 400 miles between gas fill-ups and it takes 11.3 gallons to fill up the tank. What has been the mileage per gallon?" In classes where this question is asked and the answer (about 35.4 miles per gallon) is found, there are natural questions such as: "Why is this number important?" "Is this possible - do cars get this much mileage? If so, what cars do?" "What is a good gas mileage these days?" "How much less gas would be used on a 10,000-mile trip by a car averaging 35 miles per gallon than a car averaging 25 miles per gallon? How much less would it cost?" This emphasis on using mathematics to solve real-world problems forces the curriculum to make use of technology. The use of technology--in this case, a calculator - enables the teacher and students to be more efficient in using math to solve problems, freeing up the time formerly spent in calculation for solving additional problems relevant to students' lives. In the School Mathematics Project, scientific calculators are required in all courses because they are available to almost anyone who uses mathematics in the world outside of school. Computer work is recommended in all courses and is required in one advanced course because the content--functions and statistics is not covered adequately today unless one has automatic graphic and data handling capabilities. In these ways, instruction is changed not because of an a priori decision to use collaborative groups or cooperative learning but because the content and technology lend themselves to discussion and teamwork. Students are usually not satisfied merely with a right/wrong answer to an interesting problem; they wish to discuss it, they want to share their methods of solution, and they want to know whether others thought the same way. One of the salient findings from the testing of this curriculum is that students no longer ask, "How does this topic apply to the real world?" or "Why am I studying this?" In the algebra curriculum, Usiskin and Senk have included only those "word problems" that show the importance of mathematics in today's world. The curriculum developers point out the pitfalls of problems such as the following, often found in algebra texts: "Reversing the two digits in the cost of an item, a salesperson overcharges a customer by 27 cents. If the sum of the digits was 15, what was the original cost of the item?" Such problems violate two principles of application of mathematics.⁵⁶ First, they are reverse given-find, in that one has to know the answer before one can make up the question. In the real world, one would never solve a problem for which one already has a solution. Second, such problems are easier to solve with arithmetic than algebra.



Usiskin, Senk, and the teachers they work with believe it is because of these two weaknesses that such "word problems" are viewed with such antipathy that many students ask why they are studying the subject. Mathematics, Usiskin, points out, has been invented to do things more easily, not to make things more difficult. The School Mathematics Project teaches algebraic concepts using real-world problems. For example, linear equations are taught with a wide variety of constant increase or constant decrease problems, such as, "The population of the province of Quebec in Canada was 6,398,000 in 1980. If the population is increasing by 40,000 people per year, find an equation relating the population to the year." An example of a linear combination problem is: "If you eat a quarter-pounder which has 80 calories per ounce, how many 111-calorie French fries can you eat if you don't want your lunch to exceed 500 calories?" An example involving data that needs a line graph is: "Given the latitudes and mean April temperatures of some cities in the northern hemisphere, find an equation approximately relating latitude and temperature. Graph this equation. Explain why the point for Mexico City falls far from the line." Similar problems are used to teach other concepts in algebra and other courses. The goal of the curriculum developers is to show that it is important not only to have skills, to see the relationships among mathematical ideas, and to represent these ideas concretely or pictorially, but also to see why mathematics is so important in so many ways in today's world.⁴⁸

Joliet West High School, Joliet, IL Joliet is a community of approximately 100,000 people diverse in terms of racial background and income level. Whites, blacks, and Hispanics reside in Joliet. It is home to families living in poverty as well as families living in affluence. In the mid-'80s, Joliet West High school had a high failure rate (37 percent of the freshmen class failed one or more classes) and a high rate of referrals for discipline problems. Determined to equip students with knowledge and skills to succeed both in school and out, the high school instituted a cooperative learning program exemplifying collaborative instruction. Basic to Joliet West High School's program are the TEAM (Together Each Accomplishes More) Seminars in which all freshmen participate daily. Seminars provide students with opportunities to experience small-group, cooperative learning. While learning problem-solving and decision-making skills, students, grouped heterogeneously with regard to race, economic level, and ability, begin to appreciate diverse cultures, attitudes, and abilities. TEAM also involves the community: Local hospital staff talk with freshmen about stress management and drug abuse prevention; other community members introduce students to career possibilities. Aware that collaboration promotes learning in many settings, Joliet West High School trains many of its content-area teachers to make their classrooms communities of collaboration. In English, history, foreign language, and industrial technology, for example, students collaborate in small groups or as an entire classroom; they share prior knowledge, set learning goals, monitor their progress, and share responsibility for results.⁵⁵ Heterogeneous grouping may team students from various socioeconomic groups and students with varying experiential backgrounds. Gifted students and former Special Education students may collaborate. Classrooms are open communities where all ideas are welcome; students challenge each other and share positive criticism. Teachers offer positive reinforcement and communicate successes to parents. Collaborative techniques extend to discipline. Student groups, trained in mediation and arbitration, counsel students who are habitually tardy or disruptive. Joliet's success is evident not only in academic performance, but also in student attitudes, motivation, and self-esteem. Since the program's inception three years ago, the number of students earning grades in the A to C level has increased by 20 percent, and there has been a significant reduction in the number of failures among the academically at-risk group. Teacher comments illustrate other types of gains: "I use it in auto technology. Students change oil in triads: one picks up the tools, one puts them away, while one actually does the job. All watch and are responsible that the job is done properly." "I find that there seem to be fewer disciplinary referrals on the freshman level." "In freshman seminar my students are forming their own groups to study before major tests. They quiz each other. They enjoy working together so much, they have even made up their own games and asked me to be part of their group." Student comments may be the most insightful: "I really like sharing answers. I never shared answers before." "I really like working in groups because you can bring your grade up." "While working in groups there are no arguments. If you disagree with someone you find a way to solve the problem." "I learned not to argue and always help out and share ideas that you think of and do not start fights." "Working with groups is fun because you get to share your facts with someone else."⁴⁹

Beaupre Elementary School, Aurora, IL This school's student population is approximately 44 percent Hispanic, 46 percent black, 9 percent white, and 1 percent Asian. Most students are members of low-income families. Just a few years ago, many Aurora citizens had few expectations of Beaupre students. The community regarded many



students as little more than troublemakers. School personnel were frustrated with their students' lack of learning success, particularly in reading. All that has changed. The program that made all the difference is called **Reading, Reading, Everywhere**. Far more than a reading program, it demonstrates how collaboration within the classroom, the school, and the community can produce successful learners. Rather than continuing to rely on homogeneous grouping and entirely on basal readers, Beaupre adopted a whole-language approach and collaborative learning. The curriculum provides students with opportunities to read many types of literature by authors from various cultural backgrounds, opportunities to visit the public library, and diverse writing experiences. An instructional technique known as K-W-L was introduced in classrooms. Teachers activate students' prior knowledge by asking them what they already know; then students (collaborating as a classroom unit or within small groups) set goals specifying what they want to learn; and, after reading, students discuss what they have learned. Students apply higher-order thinking strategies which help them construct meaning from what they read and help them monitor progress toward their goals. At Beaupre, students often work in cooperative groups in which each student has a specific responsibility--to complete a product such as a story map. Fifth- and sixth-grade teachers have seen how effectively peer influence regulates behavior when group members must cooperate to complete a science experiment or other type of assignment. Beaupre has gained respect in the community by utilizing the talents of community members to further stimulate learning.⁵⁴ Among the numerous collaborative efforts are: visits to senior centers where youngsters and senior citizens read to each other; visits to early education centers where Beaupre students share their knowledge with the toddlers; a homework lab operated by teenagers and seniors from a local church; and an Urban League tutoring program operated by parents and high school students. A program exemplifying collaboration as well as a whole-language approach is the school's Read Aloud program. Students in each classroom write to community members inviting them to be the "community reader" for the day. Community members of various ethnic groups and occupations have accepted invitations and serve as role models for the students. In addition to heightened involvement and respect from parents and the community at large, Beaupre has observed improvement in students' reading habits and abilities: after-school reading was up 20 percent; the number of students holding library cards increased by 28 percent; newspaper readership by students increased significantly. On state reading comprehension and vocabulary assessments, the school rose from last in the school district to first in the county; the percent of students in the bottom quartile on standardized tests for grade 1-6 decreased from 80 percent to 22 percent; and overall reading scores of at-risk students tutored through the Urban League Project increased 34 percent. In fact, 5 of 15 students moved out of the at-risk category.⁵⁰

Redwood Falls High School, Redwood Falls, MN Redwood Falls, a community of 5,000 people, is rapidly changing. What was once a very stable community is now characterized by instability: Many farmers found it necessary to leave the area, others remained and took low income jobs, and a number of new people are moving into the area. The range of income levels is wider now than when agriculture was the main enterprise. These changes have created a lack of cohesiveness and feelings of insecurity in the community. High school students, especially, fear for their future and wonder if they will find jobs. The town's limited manufacturing enterprises, retail stores, and remaining farms cannot provide employment for all the town's youth. Most will probably seek jobs in small cities nearby. To address these problems, in the late 1980s the school system applied to the American Forum in the late 1980s and was awarded a five-year Education 2000 grant. Education 2000 funds enable communities to restructure schools so that students are prepared for a changing society. To accomplish this aim, the entire Redwood Falls community collaborated to set goals and develop a restructuring plan. These efforts have led to many positive changes. People began regarding the schools as the center of intellectual life for the community at large. Early childhood, family education, and university level adult education courses are among those programs available to everyone in the community.⁵¹

IV. CONCLUSIONS

Curriculum and instruction have also changed. Instruction is much more collaborative, and curriculum focuses more on higher order thinking skills needed for success in school and in life. Teachers tap students' prior knowledge and help students "learn how to learn," through collaborative problem solving and decision making. When students need information, they ask an "expert" classmate or contact a community expert. Students develop their own tools to



"test" how well they have learned.⁵³ The curriculum has also become more interdisciplinary and builds on the multicultural resources in the community (Native Americans, Swedes, and Norwegians). In Larry Gavin's high school English class, for example, students work in small groups to critique each other's writing. When students write narrative, they consult Dakota Indian students who are skillful in writing narrative because in their culture, nothing is an "event" until someone tells a story about it. When studying about conflicts on the Great Plains in the 1800s between Native American and white groups, students heard representatives of both groups present their point of view. Gavin, the drama teacher, and the music teacher collaborated to assist students in writing and producing an original one-act play.⁵²

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